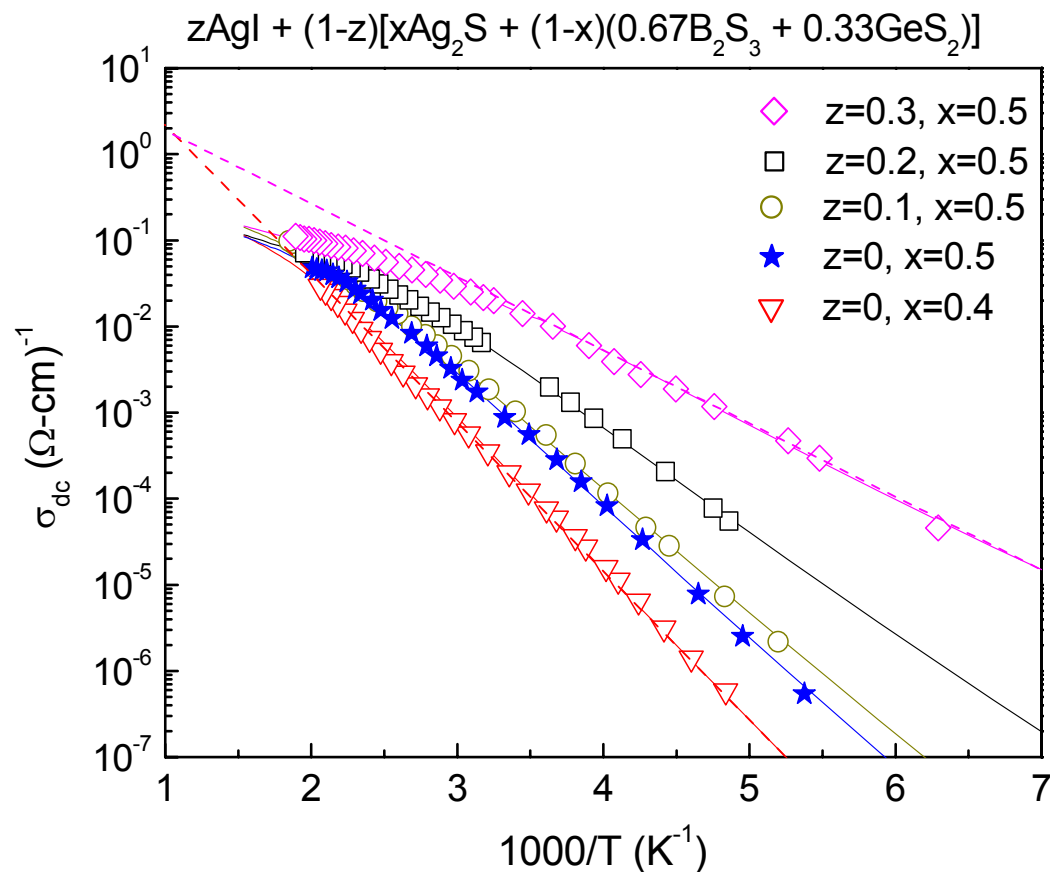


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Highly conducting solid electrolytes are required for high energy density batteries and fuel cells. However, when the chemistry is optimized, the conductivity becomes non-linear and falls short of requirements.

The ISU research team has developed a model, solid line, that shows that the shortfall in the conductivity arises from a new phenomena of ion trapping limiting the mobility of the mobile carriers



Dynamics and Structure in Complex Disordered FIC Electrolytes: Is there a Maximum Ionic Conductivity in the Solid State? DMR-9972466

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Iowa State University

Education: The PI manages the ISU Glassblowing Studio for both artistic glass blowing by ~ 100 students across campus and for informal science education demonstrations. The format is both lecture and demonstration, but as can be seen, hands-on experiences by the student visitors are a strong part of the demonstrations. ~ 3,000 K-12 students are brought through the Glass Studio each year

